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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/618,963

07/15/2003

Preben Lexow

Q-76325

5915

23373 7590 10/19/2007  
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EXAMINER

WHISENANT, ETHAN C

ART UNIT

PAPER NUMBER

1634

MAIL DATE

DELIVERY MODE

10/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/618,963	Applicant(s) LEXOW, PREBEN	
	Examiner Ethan Whisenant, Ph.D.	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26 and 29-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26,29,31-33,35,39 and 40 is/are rejected.
- 7) ☒ Claim(s) 30,34 and 36-38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 JUL 03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/886,223.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## NON-FINAL ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 25 SEP 07 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 AUG 07 has now been entered. **Claim(s) 26 and 29-40** are now pending.

## 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that may form the basis for rejections set forth in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

### CLAIM REJECTIONS UNDER 35 USC § 102

4. **Claim(s) 26, 29 and 40** is/are rejected under 35 U.S.C. 102(b) as being anticipated by Médigue et al. [Molecular Microbiology 4(2) : 169-187 (1990)].

Médigue et al. teach a method of sequencing all or a part of a target nucleic acid molecule comprising all of the limitations recited in **Claim 26**. In Médigue et al. the magnifying tags are the individual restriction sites of the *E. coli* chromosome restriction map.

**Claim 29** is drawn to an embodiment of the method of Claim 26 wherein the portion which is sequenced has 4 or more nucleotide bases and/or the position of said portion within said target nucleic acid is determined with an accuracy of the less than 1 kb.

Médigue et al. teach this limitation wherein these authors teach localizing 678kbp of DNA sequence on the *E. coli* map of 4720 kbp. See page 169.

**Claim 40** is drawn to an embodiment of the method of Claim 26 wherein said magnifying tags comprise a nucleic acid sequence of at least two nucleotide bases.

Médigue et al. teach this limitation Please note that each of the magnifying tags (i.e. the restriction sites) in Médigue et al. comprise at minimum 4 nucleotides. Note the restriction sites described by Médigue et al. which include : BamHI, HindIII, EcoRI, EcoRV, Bgl I, Kpn I, Pst I and PvuII .

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**5. Claim(s) 26, 29, 31-33, 35 and 39** is/are rejected under 35 U.S.C. 102(b) as being anticipated by Shumaker et al. [Human Mutation 7 : 346-354 ( 1996)].

Shumaker et al. teach a method of sequencing all or a part of a target nucleic acid molecule comprising all of the limitations recited in Claims 26 and 31-33 and 39. In Shumaker et al. the magnifying tags are the labels indicating which base is present and the positional marker is the sequence GACTGAACGTCTTGC shown in Figure 3. See especially Figures 3 and 4.

**Claim 29** is drawn to an embodiment of the method of Claim 26 wherein the portion which is sequenced has 4 or more nucleotide bases and/or the position of said portion within said target nucleic acid is determined with an accuracy of the less than 1 kb.

Shumaker et al. teach that the portion sequenced is 5 nucleotides i.e. 4 or more nucleotide bases). See the first full paragraph beginning in Column 1 of p. 351 which begins : "The sequence of the w.t. DNA is shown in Figure 4A."

**Claim 35** is drawn to an embodiment of the method of Claim 26 wherein said method is performed on a sample comprising a heterogeneous mixture of target nucleic acid molecules.

Shumaker et al. teach this limitation Note especially panel B of Figure 4.

#### CLAIM OBJECTIONS

**6. Claim(s) 30, 34, 36-38** is /are objected to as being dependent upon a rejected base claim, but would appear to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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### CONCLUSION

7. **Claim(s) 26 and 29-40** is/are rejected and/or objected to for the reason(s) set forth above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ethan Whisenant, Ph.D. whose telephone number is (571) 272-0754. The examiner can normally be reached Monday-Friday from 8:30AM - 5:30PM EST or any time via voice mail. If repeated attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached at (571) 272-0735.

The Central Fax number for the USPTO is (571) 273-8300. Please note that the faxing of papers must conform with the Notice to Comply published in the Official Gazette, 1096 OG 30 (November 15, 1989).

/Ethan Whisenant/  
Primary Examiner  
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